

# STATE OF ALASKA

## DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT

ALASKA PUBLIC UTILITIES COMMISSION

April 11, 1996

TONY KNOWLES, GOVERNOR

1016 WEST SIXTH AVENUE, SUITE 400

ANCHORAGE, ALASKA 99501-1963

PHONE: (907) 276-6222

FAX: (907) 276-0160

TTY: (907) 276-4533

EMail: apuc@apuc.ak.net

File: CC 96-45

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12 1996

FCC MAIL ROOM

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

Re: CC Docket No. 96-45

Dear Mr. Caton:

Enclosed are an original and nine copies of the Comments of the Alaska Public Utilities Commission in response to the Notice of Proposed Rulemaking and Order Establishing Joint Board released on March 8, 1996, by the Federal Communications Commission in CC Docket No. 96-45 (FCC 96-93).

Sincerely,

ALASKA PUBLIC UTILITIES COMMISSION



Don Schröer  
Chairman

Enclosures

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Before the  
Federal Communications Commission  
Washington, D.C. 20554

In the Matter of )  
Federal-State Joint Board on )  
Universal Service )

CC Docket No. 96-45

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12 1996

Comments of the FCC MAIL ROOM  
Alaska Public Utilities Commission

Alaska Public Utilities Commission  
1016 West Sixth Avenue, Suite 400  
Anchorage, Alaska 99501  
(907) 276-6222; TTY (907) 276-4533

Date: April 11, 1996

Don Schröer, Chairman  
Alaska Public Utilities Commission  
1015 West Sixth Avenue, Suite 400  
Anchorage, Alaska 99501

## Executive Summary

The Alaska Public Utilities Commission (APUC) recognizes that it may be necessary to reevaluate the existing universal service support mechanisms in light of the Telecommunications Act of 1996 and the increase in local competition throughout the nation. However, care must be taken that such new universal service policies ensure an adequate level of support for high-cost areas and are sufficiently flexible to accommodate the unique needs and characteristics of the rural markets.

The APUC requests that sufficient cost support be provided to ensure that the following telecommunications services become affordable and accessible in rural, insular, and high-cost areas:

- (1) voice-grade local services;
- (2) touch-tone service;
- (3) single-party service;
- (4) interexchange and local access to emergency services;
- (5) access to operator services;
- (6) local dialing access to the Internet;
- (7) line quality capable of local and interexchange facsimile transmission;
- (8) line quality capable of local and interexchange data transmission at 28.8 kilobytes per second using modem;
- (9) telecommunications relay service for voice-to-text and text-to-voice translation;
- (10) connectivity with all public toll, local, wireline, and wireless networks;
- (11) toll blocking, 900 and 976 number blocking; and
- (12) access to optional digital services such as switched 56 and Integrated Services Digital Network.

The FCC should ensure that universal service support covers the cost of an infrastructure that is adequate to provide advanced

1 telecommunications and information services (including inter-  
2 exchange services) to rural, high-cost, and insular areas.

3 If the FCC adopts a universal service mechanism that replaces  
4 the universal service fund and other high-cost support, it should  
5 carefully consider the unique needs of rural users. The key  
6 points of past APUC comments regarding high-cost support in CC  
7 Docket 80-286 are summarized in these comments.

8 The APUC has numerous concerns about the appropriateness of  
9 applying the Benchmark Costing Model (BCM) to Alaska. The BCM  
10 would require significant modification before it could be applied  
11 to Alaska. Any new system adopted by the FCC should be  
12 implemented first on a trial basis in areas where competition is  
13 well established.

14 High-cost support should be extended only to carriers willing  
15 to provide dependable, high-quality service and evidence that the  
16 cost support is being used for its intended purpose. The APUC  
17 requests that the existing division of responsibility for payment  
18 of high-cost support between state and federal sources remain the  
19 same, including the assessment of high-cost fees based on in-state  
20 revenues.

21 The APUC opposes further increases to the Subscriber Line  
22 Charge.

Before the  
Federal Communications Commission  
Washington, D.C. 20554

In the Matter of )  
Federal-State Joint Board on ) CC Docket No. 96-45  
Universal Service )  
)

Comments of the  
Alaska Public Utilities Commission

The Alaska Public Utilities Commission (APUC) welcomes the opportunity to file comments in response to the Notice of Proposed Rulemaking and Order Establishing Joint Board (NPRM) released on March 8, 1996, in CC Docket No. 96-45. The APUC recognizes that it may be necessary to reevaluate the existing mechanisms that provide universal service support in light of the Telecommunications Act of 1996 (the Act) and the increase in local competition throughout the nation. However, care must be taken that any new policies ensure an adequate level of support for high-cost areas and are sufficiently flexible to accommodate the unique needs and characteristics of the rural markets. The APUC is especially concerned that the definition of and the funding for universal service be adaptive to meet rural needs because over 90 percent of all Alaskan communities are high cost and rural.

Definition of Universal Service

The APUC requests that sufficient cost support be provided to ensure that the following telecommunications services become affordable and accessible in rural, insular, and high-cost areas:

- 1 (1) voice-grade local service;
- 2 (2) touch-tone service;
- 3 (3) single-party service;
- 4 (4) interexchange and local access to emergency services;
- 5 (5) access to operator services;
- 6 (6) local-dialing access to the Internet;
- 7 (7) line quality capable of local and interexchange fac-
- 8 simile transmission;
- 9 (8) line quality capable of local and interexchange data
- 10 transmission at 28.8 kilobytes per second (kbps) using
- 11 a modem;
- 12 (9) telecommunications relay service for voice-to-text and
- 13 text-to-voice translation;
- 14 (10) connectivity with all public toll, local, wireline, and
- 15 wireless networks;
- 16 (11) toll blocking, 900 and 976 number blocking; and
- 17 (12) access to optional digital services such as switched 56
- 18 and Integrated Services Digital Network (ISDN).<sup>1</sup>

19 All these services are required by and available to a substantial  
20 majority of residential and business customers and are commonly  
21 deployed in the public telecommunications network throughout the  
22 contiguous United States. All these "core" services are not  
23

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24  
25 <sup>1</sup>By "optional" the APUC means that the services listed under  
26 (12) would not be part of the basic service package at this time  
but, rather, would be universally available at a competitively  
priced market rate.

1 currently available to many rural Alaskans because the existing  
2 telecommunications network cannot support them.

3 Voice-grade local service, touch-tone service, single-party  
4 service, access to operator services, and access to local  
5 emergency services should be included under the definition of  
6 "Core services" for the reasons expressed in the NPRM. Support  
7 for emergency services should include both local and toll access  
8 because many rural communities have limited local facilities to  
9 handle emergencies. When a disaster occurs in Alaska, the "fac-  
10 tors of distance, harsh climate, rugged terrain, and dependance  
11 on air travel make relief efforts at times uncertain and in all  
12 cases costly."<sup>2</sup> Emergency services are also limited, and many  
13 critical services are available only in urban areas of the state.<sup>3</sup>  
14 For example, most rural Alaskan residents live outside the ground  
15 transportation radius (and local calling area) of a hospital.  
16 Medical emergencies are often handled by air evacuation or by  
17 sending emergency care teams to the patient.<sup>4</sup> The logistics of  
18

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19  
20 <sup>2</sup>Alaska Emergency Operations Plan, Division of Emergency  
21 Services of the Alaska Department of Military and Veterans  
Affairs, 1994, at 4.

22 <sup>3</sup>"[Alaska's] 16 boroughs should not be viewed in the emer-  
23 gency context as being the equivalent of county governments. Only  
24 in the three unified home rule municipalities will one find  
25 municipally run emergency services similar to county style  
26 agencies. In the other 13 boroughs, area wide powers focus on  
education, land use planning, and tax assessment/collection.  
Emergency services, if any, are highly decentralized and provided  
by scattered, independent service areas." (Alaska Emergency  
Operations Plan, 1994, at 1.)

<sup>4</sup>Pharmacy in Alaska: A History, Tom Reale, 1992, at 15.

1 providing and requesting emergency assistance under these con-  
2 ditions make Alaskans highly dependent upon toll communications.  
3 Affordable toll access to emergency services is therefore critical  
4 to the public in Alaska.

5 Local (toll free) Internet access, facsimile services, and  
6 28.8 kbps data transmission capabilities should also be classified  
7 as Core services. These services provide access to key informa-  
8 tional data bases and communications forums essential for economic  
9 and personal development; education, and productivity; and greater  
10 efficiencies in the workplace and at home. Need for these  
11 services is especially important in remote, isolated, rural areas  
12 of Alaska where access to information resources is often severely  
13 limited.

14 Eighty-eight percent<sup>5</sup> of all cities and villages in Alaska  
15 are in isolated, rural areas that have extremely low population  
16 (under 1000 people). These communities, by their size and remote-  
17 ness, normally do not have the local infrastructure (e.g., large  
18 libraries,<sup>6</sup> universities, hospitals, business centers) available  
19 in urban areas. Over 90 percent of all communities in Alaska,  
20 including the state capital, are not accessible by road. There-  
21 fore, rural residents do not have the option of driving to an  
22 urban center to do business, conduct research, and obtain infor-  
23

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24 <sup>5</sup>1990, Census of Population and Housing, Summary Social,  
25 Economic, & Housing Characteristics, Alaska, Table 11.

26 <sup>6</sup>Only Anchorage, Fairbanks, and Juneau public libraries have  
over 100,000 books and serials available for viewing. (Statistics  
of Alaska Public Libraries, FY 1992 and FY 1993, Table 2.)



1 mation on job opportunities, health-care issues, educational  
2 materials, regional government issues, and other critical matters.

3       Given these circumstances, Alaskans must carefully coordinate  
4 all activities with a high reliance on telecommunications ser-  
5 vices. Communications access through the Internet, facsimile  
6 service, and data transmission offers an important substitute for  
7 the lack of local information resources in isolated, rural areas;  
8 and these services should be included in the definition of Core  
9 services. If these services are unaffordable or unavailable, then  
10 rural areas will fail to keep pace with the urban areas as society  
11 becomes increasingly reliant upon electronic communications for  
12 many of its daily activities.

13       Local-dial access to the Internet should be listed as a Core  
14 service because of the cost to remote users to obtain inter-  
15 exchange access to the Internet. When end-users must pay for long  
16 distance access on top of the charges for Internet service, uni-  
17 versal service support should be provided. In addition, where  
18 commercial internet services are not available on a local-dial  
19 basis, the FCC should encourage the use of government networks  
20 to facilitate this access.

21       Support should be available to allow affordable access to  
22 high-quality switched data services (e.g., ISDN) as the absence  
23 of these services severely limits the capability of the public to  
24 access information efficiently and speedily.

1       Telecommunications relay service should be classified as a  
2 Core service to ensure that the hearing- or speech-impaired  
3 community has reasonable and affordable access to services.

4       All toll blocking, including 900 and 976 numbers, are  
5 critical services that provide residential and business customers  
6 with the ability to control the use of their phones in order to  
7 avoid high toll and other fees that might compromise their ability  
8 to afford communications services. Toll-blocking services should  
9 also be classified as Core services.

10       The FCC should expand the definition of Core services to  
11 include both local and toll calling in rural areas. Because of  
12 the remoteness, isolation, and lack of roads between villages and  
13 cities, Alaskans rely on interexchange communications to provide  
14 access to critical services that are not locally available. More  
15 than half of all Alaskan communities can only reach about  
16 100 access lines through local calling.<sup>7</sup> The APUC believes that  
17 the goal of universal service is not served when customers have  
18 extremely limited but affordable local calling, yet lack access  
19 to affordable interexchange services. If the FCC broadens the  
20 definition of universal service to include toll calling, suf-  
21 ficient funds should be made available to meet the need. Funds  
22 should not be arbitrarily capped.

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26       <sup>7</sup>See Comments of the APUC, CC Docket 80-286, at Appendix F,  
October 9, 1995.

1 Universal Service Support for Adequate Infrastructure and Access

2       The FCC should ensure that universal service support covers  
3 the cost of adequate infrastructure and access for the provision  
4 of advanced telecommunications and information services (including  
5 interexchange services) to rural, high-cost, and insular areas.  
6 The concept of universal service must address both affordability  
7 of services and *availability of services*. If there are no  
8 facilities capable of providing a Core service, then the issue of  
9 affordability is moot. Universal service support should be  
10 provided to aid in upgrading facilities, including interexchange  
11 facilities, when upgrading is necessary to supply Core and  
12 specialized services<sup>8</sup> and when the cost of upgrading is  
13 sufficiently high to warrant support.

14  
15 A. Alaska is dependent on costly satellite technology.

16       While most of the United States benefits from low-cost fiber-  
17 optic transmission, most of Alaska depends on satellite trans-  
18 mission for interexchange service. Extending fiber-optic cable  
19 to Alaska's many remote communities would be prohibitively  
20 expensive because of Alaska's vast distances, low population,  
21 terrain, and numerous remote communities. Rural Alaska is,  
22  
23  
24

25 <sup>8</sup>Section 254(h) of the Act provides for use of universal  
26 service funds (USF) to support advanced telecommunications  
services to schools, libraries, and health-care providers at rates  
that are reasonably comparable to those charged for similar  
services in urban areas.

1 therefore, unable to benefit from the low, per-unit cost of fiber-  
2 optic technology that is generally available elsewhere.<sup>9</sup>

3 B. The current telecommunications infrastructure in rural  
4 Alaska is substandard, and generally inadequate and  
5 expensive when used for data transmission.

6 Many rural Alaskan communities are still using first gen-  
7 eration (bush) earth stations installed in the mid- to late  
8 1970's. These communities are at a disadvantage for two  
9 technological reasons: (1) bush earth stations use antiquated  
10 analog transmission which reduces signal quality; and (2) calls  
11 are "double hopped"<sup>10</sup> which introduces a delay of a half second or  
12 more. The combined effect of these two factors makes voice  
13 communication difficult and reliable data transmission at  
14 reasonable speeds virtually impossible.<sup>11</sup>

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16  
17  
18 <sup>9</sup>Appendix B to these Comments compares the cost of satellite,  
19 microwave, and fiber at various output levels in Alaska. From  
20 these charts, one can see that the minimum cost per channel of  
satellite and microwave transmission is much higher than fiber at  
optimum output levels.

21 <sup>10</sup>A double-hopped call is one in which the call from one  
22 community is up linked to the satellite, down linked to a  
23 switching hub, up linked back to the satellite, and down linked  
to the earth station in another community.

24 <sup>11</sup>"Calls between Alaskan villages are ridden [sic] with hiss  
25 and excessive delays from multiple satellite hops. Modem con-  
26 nections between villages disconnect spontaneously and operate as  
much as 24 times slower than modem connections within Anchorage."  
(Distance Delivery Consortium, Position Statement Public Telecom-  
munications Infrastructure and Policy in Rural Alaska, January 11,  
1995.)

1 Data services that use enhanced protocols, such as X.25 and  
2 frame relay protocols,<sup>12</sup> are generally not available in Alaska's  
3 most rural communities. Therefore, data users in these areas must  
4 transmit data over voice grade circuits (at regular MTS rates) and  
5 are also plagued by very slow transmission speeds that are not  
6 adequate for Internet use. Even where X.25 service is available,  
7 the \$4-per-hour transmission charge can easily triple the monthly  
8 cost of an Internet account for a low-volume user, making it  
9 prohibitively expensive.<sup>13</sup>

10 Excessive costs and antiquated analog transmission systems  
11 limit the availability of decent quality access to E-mail or other  
12 Internet services to rural Alaska schools, libraries, and health-  
13 care providers. Schools cannot employ two-way video instruction;  
14 and public health clinics cannot make use of narrowband tele-  
15 medicine technologies. Advanced telecommunications and information  
16 services would dramatically improve the ability of rural Alaskan  
17 communities (which are without access to the state highway system  
18 and are often hundreds of miles from regional public and social  
19 service agencies) to gain access to necessary services.

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22 <sup>12</sup>These services are frequently used by information providers  
23 and telecommunications carriers to reduce the cost of transmitting  
24 data. X.25, for example, can combine the traffic of multiple data  
25 users onto a single circuit and thereby allow a remote computer  
26 user to connect to a distant computer network for a fraction of  
the cost of a regular message telephone service (MTS) call.

<sup>13</sup>For example, Internet access in Anchorage runs about \$30 per  
month for an unlimited number of hours. Accessing an Internet  
provider using X.25 at \$4 per hour would result in a total monthly  
cost of \$90 [\$30 + (\$4 x 15 hours)].

1        C. Plans exist to upgrade Alaska's satellite telecom-  
2        communications infrastructure, but modernization is slow in  
3        coming. When the upgrades occur, they will still not  
4        completely eliminate Alaska's technological and cost  
5        disadvantages compared to the rest of the United States.

6        Both of the facilities-based interexchange carriers (IXCs)  
7        that will serve rural Alaska, AT&T Alascom, Inc. (AT&T Alascom),<sup>14</sup>  
8        and General Communications, Inc. (GCI),<sup>15</sup> plan to upgrade bush  
9        telecommunications infrastructure using Demand Assigned Multiple  
10       Access (DAMA) technology. GCI's project is a demonstration of  
11       DAMA in approximately 50 rural communities. AT&T Alascom plans  
12       to upgrade all its remaining bush satellite earth stations to

13       <sup>14</sup>"Today, many of the rural communities in Alaska utilize AT&T  
14       Alascom telecommunications services supported by analog tech-  
15       nology. [DAMA] is a satellite based digital technology that will  
16       supplant AT&T Alascom's rural, analog infrastructure. AT&T  
17       Alascom plans to upgrade all analog earth stations using digital  
18       technology, DAMA, that will improve telephone services by  
19       eliminating the double satellite hop that often adversely effects  
20       [sic] the quality of telephone calls in Alaska today. In  
21       addition, digitizing the earth stations will provide a mechanism  
22       for rural Alaska to obtain access to higher grades of service  
23       including digital private line and switch 56 services. AT&T  
24       Alascom will have all of Alaska upgraded to DAMA technology by end  
25       of the year 2001." (AT&T Alascom Connectivity Projects, prepared  
26       by Patrick Griffin, edited and submitted to Library Hi Tech  
     Magazine by Susan Elliott.)

<sup>15</sup>"The basic design of the DAMA system allows for the  
provision of circuit switched 'data-on-demand service.' Data-  
on-demand allows data calls to be placed at rates necessary to  
support advanced applications. Applications such as Distance  
Learning, Telemedicine, and Video Conferencing require data rates  
of typically 64 kbps to 384 kbps, depending on the quality  
desired. The channel units that will be installed can support  
data rates of up to 128 kbps; above that either multiple channels  
can be utilized in parallel or a higher speed modem can be  
installed which is controlled by the DAMA processor." (GCI's DAMA  
Project in Rural Alaska, prepared by Jimmy Jackson, edited and  
submitted to Library Hi Tech Magazine by Susan Elliott.)

1 DAMA; however, modernization will not be complete until the end  
2 of 2001.<sup>16</sup>

3 DAMA, as proposed in Alaska to date, has its limitations.  
4 Data speeds using a modem or fax over voice-grade lines will be  
5 limited to 9600 baud. Users needing higher speeds for 14.4 kbps  
6 and 28.8 kbps modems or switched 56 and ISDN service will be  
7 forced to pay premiums above basic MTS rates. This is in marked  
8 contrast to interexchange service in the lower 48 states where  
9 IXC's commonly provide bandwidth up to 64 kbps on voice grade  
10 lines.

11  
12 D. Necessary infrastructure upgrades should begin imme-  
13 diately and should be funded where necessary through  
14 universal service support mechanisms.

15 To achieve the goal of providing advanced telecommunications  
16 services to all Americans, the FCC should do more than simply  
17 require that telecommunications carriers provide currently avail-  
18 able services to schools, libraries, and health care providers at  
19 a discount. The FCC must also require that a modern telecom-  
20 munications infrastructure is available to provide these services.

21 The FCC should not wait for the conclusion of the proceeding  
22 mandated by Section 706 of the Act to encourage local exchange  
23 carriers (LECs) and IXC's to make necessary infrastructure  
24 upgrades. This process should begin immediately. For example,  
25 when the FCC knows that the capital plans of eligible carriers and

26 <sup>16</sup>AT&T Alascom's current capital plan is being reviewed in  
APUC Docket U-95-26.

1 otherwise essential IXCs are inadequate to timely meet the service  
2 standards intended by Congress, those carriers should be required  
3 to revise their plans and make any necessary service or infra-  
4 structure upgrades. Clear, firm deadlines should be established  
5 and enforced. To the extent that carriers can show that this  
6 requirement would be unduly economically burdensome, the FCC  
7 should make universal service funds available for this purpose.

8  
9 Payment of USF

10 A. Past Proposals for High-Cost Support

11 In addition to defining universal service, the FCC must also  
12 determine how it will provide high-cost support. The APUC filed  
13 comments on several of the support mechanisms proposed in  
14 CC Docket 80-286.<sup>17</sup> Some of the key points of concern identified  
15 by the APUC in those comments are:

16 (1) Due to Alaska's small population (550,000 people,  
17 338,000 loops) and high costs of providing telecommunications  
18 services, any shift in costs from the interstate to the state  
19 jurisdiction could significantly affect in-state rates. Loss of  
20 USF/DEM<sup>18</sup> revenues could lead to local rate increases of between  
21 \$20 and \$136 per month per line for many rural Alaskan customers.<sup>19</sup>  
22 The APUC urges that levels of support be continued as long as  
23 there is a need for assistance. If funding is reduced, the

24  
25 <sup>17</sup>APUC Comments, Docket 80-286, at 12.

26 <sup>18</sup>DEM means weighted dial equipment minutes.

<sup>19</sup>See Appendix A.



1 available funds should be allocated to maintain support to those  
2 companies providing services in areas with the highest costs and  
3 the greatest need for support.

4 (2) Any system to replace DEM weighting should take into  
5 account the needs of small, high-cost companies.<sup>20</sup>

6 (3) Any support mechanism based on high-cost credits must  
7 address resale of network services and treatment of resellers to  
8 ensure a level playing field, to prevent barriers to entry, and  
9 to understand the effects on existing intrastate rate design  
10 policies.

11 (4) If high-cost credits are adopted, they should not be  
12 provided on a customer-by-customer basis depending only on indi-  
13 vidual subscriber characteristics and need.<sup>21</sup> The Act intends that  
14 all customers, not just those who meet a means test, should be  
15 provided service at affordable rates.

16 (5) Census Block Groups (CBGs) are not the best standard  
17 "service block" for determining high costs in all areas of the  
18 nation as each CBG has no planned relationship to the actual  
19

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20  
21 <sup>20</sup>Data suggests that smaller companies have lower economies  
22 of scale and therefore a higher switching cost per line than  
larger companies. (APUC Comments, CC Docket No. 80-286, at 15.)

23 <sup>21</sup>Distributing funds based solely on need misses the point  
24 that the carrier's network must be built to serve all customers,  
25 not just those that pass a means test. Without sufficient  
26 support, a utility may find that it has fewer resources to  
maintain its infrastructure and service quality, leading to reduc-  
tions in both service availability and the carrier's ability to  
compete. Limiting support to low-income residential customers  
alone could also increase incentives for businesses to avoid high-  
cost areas of the country.

1 physical telecommunications network and the associated costs.  
2 Cost characteristics within a CBG can vary greatly which will  
3 create difficulties if CBGs are used for cost-modeling purposes.<sup>22</sup>  
4 The APUC recommends that if a "service block" standard must be  
5 set, it should be set by the state commissions based on local  
6 conditions.

7 (6) Mechanisms that would provide support based on a "one-  
8 size-fits-all" approach using a simple model to estimate cost may  
9 not work well when applied to Alaska or any other state with  
10 characteristics different from the model. If a cost-estimating  
11 model (such as a proxy system) is adopted, it should consider all  
12 relevant cost parameters, including subscriber density, average  
13 distance from the nearest wire center, terrain, slope, surface  
14 characteristics, climate, road accessibility, scale economies,  
15 regional labor costs, network topography, and possibly other  
16 factors.<sup>23</sup>

17 (7) Legally separate entities under a common parent should  
18 not be required to merge study areas.

19  
20 B. Joint Sponsors Benchmark Costing Model (BCM)

21 A new model called BCM was proposed to replace the existing  
22 USF/DEM system. The APUC believes that the BCM will fail to  
23

24  
25 <sup>22</sup>In Alaska, CBGs can span large areas that include a wide  
26 variety of household densities, slope, soil characteristics, and  
terrain, and may contain multiple, isolated exchanges.

<sup>23</sup>See APUC Comments, CC Docket 80-286, at 26 - 31.

1 provide appropriate support if applied to Alaska in the model's  
2 current form, leading to erosion of universal service.

3 (1) The BCM is not designed to work in all areas of Alaska.<sup>24</sup>

4 (2) The minimum outside plant and switch assumptions under  
5 the BCM are much larger than actual plant sizes found in the vast  
6 majority of communities in Alaska and possibly in other states.<sup>25</sup>

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16 <sup>24</sup>The BCM's flowcharts and programs assume that only one  
17 central office serves a CBG. That is not always the case. There  
18 are many instances in Alaska where a CBG is so large that the CBG  
19 contains more than one isolated central office. See APUC Com-  
20 ments, CC Docket 80-286, at Appendix D. As a result, some of the  
key data parameters under the BCM (e.g., distance between the CBG  
and the central office) become undeterminable, and the model would  
require revision in order to work as intended.

21 <sup>25</sup>For example, the model assumes four feeder routes leave each  
22 central office, with each route having minimum size feeder cables  
23 of 100 pair for copper and 12 strands for fiber. This minimum  
24 configuration size would appear to be "overkill" in Alaska because  
25 about 75 percent of all communities in Alaska have less than  
26 250 access lines. In addition, the BCM assumes a Northern Telecom  
DMS 100 technology as the standard switch deployed. The DMS 100  
is far too large a switch for most areas of Alaska. Only about  
5 percent of all switches in Alaska are DMS 100s, and only 6 per-  
cent of all communities in Alaska are of sufficient size that a  
DMS 100 or its equivalent would likely be considered. Given the  
above, the BCM is not designed to accurately reflect cost con-  
ditions in most parts of Alaska.

1 (3) It is not evident that the annual cost factors under the  
2 model will be appropriate for small rural local exchanges.<sup>26</sup>

3 (4) The BCM does not take into account key parameters that  
4 increase cost such as climate, lack of roads, regional labor  
5 rates, and other factors.

6 (5) The BCM model employs a CBG standard which may not be  
7 appropriate for all areas of the country.

8 Given the above, the BCM will require significant  
9 modification before it should be applied in Alaska.

10  
11 C. Implementation Concerns

12 Any newly adopted system must ensure that consumer rates  
13 remain affordable by providing adequate support. Because almost  
14 all the proposed changes to the existing support mechanisms are  
15 untried, there is no certainty that any of the new systems will  
16 actually work as contemplated. The APUC, therefore, suggests that  
17 any changes to the cost-support system be implemented first on a  
18 trial basis by the larger companies that operate in a competitive  
19 environment. This will provide an opportunity for the FCC to  
20 observe any new system in operation and to refine it as needed  
21 prior to applying it to the smaller companies. A phased-in  
22 implementation is important because the smaller companies, with  
23  
24

25 <sup>26</sup>The Annual Cost Factor #1 under the model is based solely  
26 on records for Tier 1 LECs. Tier 1 LECs, because of their size,  
are likely to have greater economies of scale than the small rural  
LECs found in Alaska.

1 their limited resources, are less to absorb losses if the new  
2 system does not work as expected.

3 If necessary the existing USF system could be revised, as a  
4 transitional step, to allow support funding for Core and spe-  
5 cialized<sup>27</sup> services in the smaller exchanges until a comprehensive  
6 long-term support system is developed.

7  
8 D. Eligibility for Support

9 High-cost support should be provided only to carriers willing  
10 to make commitments to (a) provide dependable, high-quality  
11 service to the public and (b) provide evidence that the support  
12 is being used for the purpose intended and not merely to increase  
13 stockholder dividends or to cross-subsidize other operations.

14 Without quality-of-service standards, the "service" provided  
15 to a customer could be so poor as to have no value, leading to a  
16 waste of scarce support funds. In addition, support should be  
17 provided only to a carrier willing to demonstrate how it used the  
18 subsidy funds. If necessary, carriers should be required to  
19 follow minimal standard accounting procedures and be subject to  
20 audit, either by the FCC or by the state commissions to ensure  
21 that funds are properly used.

22 E. Division of Funding Responsibility between State and  
23 Federal Jurisdictions

24 The APUC requests that there be no change in the existing  
25 division of responsibility for payment of high-cost support  
26

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<sup>27</sup>See n. 8.

1 between state and federal sources. Similarly, the APUC requests  
2 that the FCC not assess high-cost support fees based on in-state  
3 revenues as this would shift the funding obligation to the state  
4 jurisdiction.

5 Alaska's limited population cannot support a material  
6 portion of the present interstate funding levels given the high  
7 costs of providing basic service. Consequently, shifts in payment  
8 responsibility from the federal to the state jurisdiction could  
9 lead to in-state rate shock and to a serious threat to universal  
10 service.<sup>28</sup>

11 Maintaining the obligation for high-cost support at the  
12 federal level also has several advantages. First, any federal  
13 fund will be much larger than the individual state funds and,  
14 thus, will be more stable and less sensitive to the individual  
15 variations in each utility's support requirements. Any big  
16 increases to costs that might lead to rate shock at the state  
17 level could instead be spread over the entire federal support  
18 "pool", thereby reducing the impact and risks to the fund.  
19 Second, each state has a different high-cost pattern and a  
20 different ability to support universal service. Shifting the  
21 obligation to fund universal service in whole or in part to the  
22 states could lead to a disproportionate burden on different  
23 states, with rural and low-population states being the most  
24

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25 <sup>28</sup>In several locations in Alaska over 50 percent of the  
26 population lives below the poverty line. (See 1990 Census of  
Population & Housing, Summary Social, Economic, and Housing Char-  
acteristics. Alaska, Table 10.)

1   disadvantaged by the process.   Third, having a national fund  
2   reduces the likelihood that a carrier will resort to arbitrage to  
3   avoid contributing to a state's high-cost USF.

4       Finally, the current division of responsibilities has worked  
5   well, and it is premature to consider shifting obligations to the  
6   states when it is unknown how much funding will be required to  
7   support the new, evolving, and expanded definition of universal  
8   service. Required levels of funding may rise above current levels  
9   depending on how universal service is defined and the number of  
10   carriers eligible for support. It would be more appropriate for  
11   the costs of universal service to be spread evenly across the  
12   nation rather than recovered under a system that selectively  
13   disadvantages some of the states.

14  
15   Subscriber Line Charges (SLC) / Carrier Common Line (CCL) Rate

16       Several years ago the FCC implemented an SLC and a CCL charge  
17   to recover the portion of the loop costs associated with the  
18   provision of interstate long distance services.

19       The APUC opposes any increases to the SLC. Before the FCC  
20   makes any further changes to the SLC, it should comprehensively  
21   address the rationale for the SLC, particularly within the  
22   changing local and nonlocal market structures. The APUC recom-  
23   mends that any such analysis include, among other possible issues:  
24   the competitive effects of the SLC and CCL charges on incumbents  
25   and competitors (including facilities-based versus nonfacilities  
26   based competitors); the equity and efficiency effects on various

1 classes of end-users including large toll customers receiving  
2 sizeable discounts; and the growth in nontoll access customers  
3 such as Internet providers and wireless services.

4 Finally, and perhaps most importantly, the FCC should  
5 evaluate the degree to which an increase in the SLC will be  
6 counter-productive to the goals of preserving and advancing  
7 universal service.

8  
9 RESPECTFULLY SUBMITTED this 11th day of April, 1996.

10 BY DIRECTION OF THE COMMISSION

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13   
14 By: Commissioner Don Schröer  
Chairman, Alaska Public Utilities Commission

15  
16 cc: William F. Caton  
Acting Secretary  
17 Federal Communications Commission

18 Attached list  
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Analysis of elimination of USF and DEM weighting.

Company	State	12/31/93 USF Loop	Annual USF Expense Adj.	USF/ Loop	Loss of Estimated 1993 DEM WTG	Combined USF + DEM WT Change	Total \$ Impact /Loop/Mo
ANCHORAGE TEL UTIL	AK	142,271	0	0	0	0	\$0.00
ARCTIC SLOPE TEL	AK	1,684	655,825	389	680,470	1,336,295	\$66.13
BRISTOL BAY TEL COOP	AK	1,511	341,255	226	275,513	616,768	\$34.02
BUSH-TELL INC.	AK	673	162,070	241	258,173	420,243	\$52.04
COPPER VALLEY TEL	AK	4,264	1,075,327	252	720,404	1,795,731	\$35.09
CORDOVA TEL COOP	AK	1,555	200,688	129	328,887	529,575	\$28.38
FAIRBANKS MUNICIPAL	AK	29,789	2,155,751	72	1,144,809	3,300,560	\$9.23
GTE ALASKA INC.	AK	15,247	0	0	782,216	782,216	\$4.28
KETCHIKAN PUBLIC UT	AK	9,008	493,696	55	815,506	1,309,202	\$12.11
MATANUSKA TEL ASSOC	AK	34,860	9,592,072	275	1,147,370	10,739,442	\$25.67
NUSHAGAK TEL COOP	AK	1,783	300,306	168	185,213	485,519	\$22.69
OTZ TEL COOPERATIVE	AK	2,354	176,497	75	302,688	479,185	\$16.96
UNITED UTILITIES INC	AK	4,208	1,603,658	381	685,294	2,288,952	\$45.33
YUKON TEL CO INC	AK	371	134,500	363	247,186	381,686	\$85.73
SUMMIT TEL & TEL -AK	AK	88	117,727	1,338	26,347	144,074	\$136.43
GLACIER STATE TEL CO	AK	38,786	10,944,919	282	931,864	11,876,783	\$25.52
JUNEAU & DOUGLAS TEL	AK	18,700	281,479	15	825,667	1,107,146	\$4.93
SITKA TELEPHONE CO	AK	10,529	1,837,809	175	1,646,397	3,484,206	\$27.58
TEL UTIL OF ALASKA	AK	4,819	0	0	319,749	319,749	\$5.53
TOTAL FOR PTI -AK	AK	72,834	13,064,207	179	3,723,677	16,787,864	\$19.21
INTERIOR TEL CO INC	AK	3,739	1,108,351	296	643,173	1,751,524	\$39.04
MUKLUK TEL CO INC	AK	852	424,583	498	137,633	562,216	\$54.99
TOTAL FOR TELALASKA - AK	AK	4,591	1,532,935	334	780,807	2,313,742	\$42.00
Cost Company Total		327,091	31,606,514	97	12,104,559	43,711,073	\$11.14
Estimated Average Schedule Total		2,963	253,849	86	232,149	485,998	\$13.67
State Total	AK	330,054	31,860,363	97	12,336,708	44,197,071	\$11.16

Data Sources: NECA USF Data Submission (9/30/94)  
FCC USF Data Collection (2/95, 3/95)

Expense adjustment amounts calculated based on 1993 data for 1995 payout, prior to application of interim USF cap.